

Rangeland Specialist Report for Sweet-Ione Project

1.0 Introduction

The Tiger Hill grazing allotment is the only active grazing allotment located within the Sweet-Ione project. Approximately 43% or 9,562 acres of the allotment lie within the current boundary of the project proposal. The Tiger Hill allotment is 22,200 acres total and is classified as a Cattle and Horse allotment. Currently it is permitted to be grazed by 1 permittee who is permitted 129 cow/calf pairs from the dates of 6/1-9/30 (see attached map).

2.0 Authority

Where consistent with other multiple use goals and objectives there is Congressional intent to allow grazing on suitable lands. (*Multiple Use Sustained Yield Act of 1960, Forest and Rangeland Renewable Resources Planning Act of 1974, Federal Land Policy and Management Act of 1976, National Forest Management Act of 1976*)

It is Forest Service policy to continue contributions to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities depending on range resources for their livelihood. (FSM 2202.1)

Permitted livestock grazing on National Forest System lands is managed through a permit system that identifies allotments and specific conditions for use of the allotments. The Forest Plan provides overall guidance for grazing, with allotment management plans providing specific guidance for each allotment. (Colville National Forest Land Management Plan, Chapter 2-Forestwide Direction, page 81).

3.0 No Action

The results of no action taken on this proposal are broken into short and long-term effects.

Short-term effects of no action on the proposal would result in little or no change in the range resource compared to the existing condition. Livestock would continue to graze on the allotment and range improvements would exist on the landscape and be used to manage grazing.

Long-term effects of no action on the project proposal would be the perpetuation of denser stands of small diameter trees which are currently providing little value for production of forage. Such stands typically have closely spaced tree canopies allowing little sunlight to reach the forest floor. The understory found in these types of environments usually consists of few grasses and are therefore generally not used by livestock.

No action on the project proposal would allow conifers and woody species to continue encroaching into the more open and grassy areas of the allotment and thereby reduce the forage producing capability of the allotment. When trees and brush encroach into upland grassy areas, they generally become more inaccessible and unavailable to livestock. As there is less forage for livestock in the upland areas of pastures, it is likely grazing pressure would increase on lower elevation riparian areas. Livestock would not be presented with better distribution opportunities into the uplands, stocking rate would remain at the current rate and the levels of use within the riparian areas would not experience a reduction in grazing pressure.

No action would produce and propagate a forest condition with a large amount of natural fuels. High levels of natural fuels could result in large stand-replacing fires burning the landscape. These types of fires would likely be more damaging to the forage base which supports livestock grazing in the short term time frame than prescribed fire. Prescribed fire could be implemented during times less damaging to cool season perennial grass plants, but wildfire could occur while plants are still growing and before they have produced mature seed needed to regenerate these areas to provide better foraging habitat for livestock. Without this regeneration, adverse impacts to other areas due to increased grazing pressure could occur.

Taking no action on this project has a greater potential to decrease forage production as tree densities continue to increase. The intensity of livestock grazing would slowly increase as the forest matured producing a more closed canopy condition where use is confined to a smaller area within the allotment which remains open with understory production. The frequency at which livestock move across the landscape is also reduced because upland distribution opportunities are not created. Use is more frequent and repetitive to the available areas for grazing. Livestock are also spending more time on the same locations within the allotment increasing the duration of use to the available areas grazed. As the amount of uplands which support grazing decreases due to the encroachment of trees and brush, riparian areas experience this increased intensity/frequency of use and duration of time. Riparian areas have less rest during the growing season and time for vegetation to recover. Increased utilization of forage, higher levels of bank alteration from bank shearing and consumption of available browse are all results of this.

If no action were to be taken on this project range improvements would be at greater risk of having wildfire damage or destroy them. If a wildfire were to occur within the project area, there would likely be little done to protect range improvements and the improvements would have to be reconstructed.

4.0 Cumulative Effects

This cumulative effects analysis identifies the effects of the Sweet-Ione Project on livestock grazing when considered with past, ongoing, and reasonably foreseeable future actions. The Interdisciplinary team considered a compiled list of these activities which is described in the Environmental Assessment. The geographic cumulative effects are extended to the Forest Service allotments which overlap into the project area. Cumulative effects of this project include temporal and spatial boundaries of private industry and Washington State Department of Natural Resources harvest activity as well as Forest Service road maintenance along the allotment and pasture boundaries of the Tiger Hill allotment.

The temporal boundaries for analyzing the direct and indirect effects are from now to 20 years in the future. After the proposed action is implemented, the vegetation would return to the pre-treated condition; the forest would mature, the trees would become larger, a closed canopy would begin to form and the vegetation available to livestock for grazing would decrease. No additional projects and treatments in addition to the proposed action would have large scale effects to grazing or vegetation resources within the allotment boundary. Transitory range is temporary and becomes less productive for forage as trees begin to regenerate. Forage production for livestock can be expected to peak from as little as a few years to a couple decades after treatment. The timing of the return to pre-treatment condition is determined by many factors, such as aspect, annual precipitation and soil type. Webb, Sala, Epstein et al quote in their article (1997) "Across broad scales, primary production on rangelands is limited by fairly constant abiotic factors such as mean annual precipitation, potential evapotranspiration, temperature, and soil texture" (Mitchell, John E., Rangeland Resource Trends in the United States. 2000)

The spatial boundaries for analyzing cumulative effects to rangelands are limited to the allotment boundaries for the Tiger Hill allotment. Harvest activities on or near allotment and pasture boundaries may reduce natural barriers to livestock movement allowing for cattle to drift.

Addressing forest health issues through vegetation management and fuels reduction would likely produce positive outcomes in the amount and abundance of understory vegetation, which permitted livestock and wildlife use as forage. Griffis et al. (2001) found that the abundance of native grass production increased substantially with treatment intensity through thinned timber stands that also had prescribed fire to reduce surface fuels. Moore and Deiter (1992) addressed that additional research has revealed that as stand density index decreases, forage production increases (Colville National Forest Land Management Plan, Final EIS Volume II, Pg. 653. 2019)

5.0 Prepared By

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6.0 References

- Griffis, K. L., J. Crawford, M. Wagner, and W. H. Moir. 2001. Understory response to management treatments in northern Arizona ponderosa pine forests. *Forest Ecology and Management*. 146:1: 239-245
- Mitchell, John E. 2000. *Rangeland Resource Trends in the United States*. 2000
- Moore, M. M. and D. A. Deiter. 1992. Stand density index as a predictor of herbage production in northern Arizona pine forests. *Journal of Range Management*, 45: 267-271
- USDA Forest Service. 2019. *Colville National Forest Land Management Plan, Final EIS Volume II*, 2019